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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,274	11/20/2003	Stephen B. Memory	00655P1222US	9973
32116	7590	06/05/2006	EXAMINER	
WOOD, PHILLIPS, KATZ, CLARK & MORTIMER 500 W. MADISON STREET SUITE 3800 CHICAGO, IL 60661			CIRIC, LJILJANA V	
			ART UNIT	PAPER NUMBER
			3753	

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/718,274

Applicant(s)

MEMORY ET AL.

Examiner

Ljiljana (Lil) V. Ciric

ARC

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>07222004, 06272005</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of the second species or the embodiment of Figure 6 (readable on claims 1, 2, 4, 5, and 6) in the reply filed on March 7, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 3 and 7 through 10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected first and third species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on March 7, 2006.

### *Drawings*

3. The formal replacement drawings were received on August 9, 2004. These drawings are hereby approved.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Cahenzli, Jr., et al. ('648, made of record via IDS).

Cahenzli, Jr., et al. ('648) discloses a suction line heat exchanger essentially as claimed, including: a refrigerant suction line or pipe 13 having first and second cylindrical portions connected in series (such as the first or right hand side portion and the second or left hand side portion of pipe 13 as shown in Figure 2), a capillary tube adapted to carry cooled refrigerant to evaporator 1 and including a

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first helically wound portion 14 and a second helically wound portion 15, and an accumulator 6 (or at least a portion thereof) disposed between the first and second cylindrical portions of the suction line or pipe 13, the latter limitation as broadly interpreted as required in a pending claim.

The reference thus reads on the claims.

6. Alternately for claim 1, claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by McGrath ('045, made of record via IDS).

McGrath ('045) discloses a suction line heat exchanger essentially as claimed, including: a refrigerant suction line or pipe 11 having first and second cylindrical portions connected in series, and a capillary tube 7 adapted to carry cooled refrigerant to evaporator 8 and including a first helically wound portion and a second helically wound portion (i.e., such as the lower and upper portions of the helically wound capillary tube 7 as shown in Figure 1).

The reference thus reads on the claim.

7. Alternately for claim 1, claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by DE 33 19 733 A1 (made of record via IDS).

DE 33 19 733 A1 discloses a suction line heat exchanger essentially as claimed, including: a refrigerant suction line or pipe 5 having first and second cylindrical portions connected in series, and a capillary tube 7 adapted to carry cooled refrigerant to evaporator 4 and including a first helically wound portion and a second helically wound portion (i.e., such as the lower and upper portions of the helically wound capillary tube 7 as shown in Figure 1).

The reference thus reads on the claim.

8. Alternately for claim 1, claims 1, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2002-349979 A (made of record via IDS).

JP 2002-349979 A discloses a suction line heat exchanger in a transcritical cooling system essentially as claimed, including: a refrigerant suction line or pipe A having first and second cylindrical

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portions connected in series, and an expansion device or capillary tube 3a adapted to carry cooled CO<sub>2</sub> refrigerant to evaporator 4 and including a first helically wound portion and a second helically wound portion (i.e., such as the lower and upper portions of the helically wound capillary tube 3a as shown in Figure 1).

The reference thus reads on the claims.

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1, 2, and 4 through 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 through 7, 10, 11, 13, and 14 of U.S. Patent No. 6,848,268 B1, issued to applicants on February 1, 2005. Although the conflicting claims are not identical, they are not patentably distinct from each other because, at most, the patented claims additionally recite a compressor and a gas cooler as being part of the cooling system. Not only are these additional recited elements standard elements of a refrigerant-based cooling system such as the inventive system of the instant application and thus not novel, but it is furthermore obvious and not inventive to omit one or more elements whose function is not needed.

### ***Allowable Subject Matter***

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11. Upon submission of a proper and timely filed terminal disclaimer to overcome the double patenting rejection cited above, claim 2 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not show nor reasonably suggest a suction line heat exchanger comprising an evaporator suction line having a capillary tube helically wrapped around the suction line and further comprising a bypass safety valve disposed between an inlet to a first helically wound portion of the capillary tube and an outlet from a second helically wound portion of the capillary tube with the bypass safety valve opening in response to a selected pressure differential between the inlet and the outlet of the capillary tube.

***Conclusion***

13. The additional prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner can normally be reached on Mondays through Fridays from 10:00 a.m. to 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached at 571-272-4929.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**LJILJANA CIRIC  
PRIMARY EXAMINER**